

YUKHINA, Yu.A.; YAGODKIN, S.I.

Dispensary observation on convalescents having had Botkin's diseases. Sov. med. 26 no.11:136-140 N°62 (MIRA 17:3)

1. Iz kafedry fakul'tetskoy terapii ( ispolnyayushchiy obyazannosti zaveduyushchego - dotsent T.R.Petrova) Kubanskogo meditsinskogo instituta i Krasnodarskoy gorodskoy klinicheskoy bol'nitsy No.1 (glavnnyy vrach P.F.Atyaskin).

YAGODKIN, V., kand.ekonom.nauk

"Technical progress and new occupations"; "Technical progress and worker  
cadres in the construction industry" by V.V.Svetlov. Reviewed by  
V.IAgodkin. Prof.-tekk. obr. 20 no.3:31 Mr '63. (MIRA 16:3)  
(Occupations) (Vocational education)

Yagodkin, V. I.  
USSR/Physics - Fluid Mechanics

FD-3231

Card 1/1      Pub. 41-12/22

Author : Yagodkin, V. I., Moscow

Title : On the Stability of a Discontinuous Flame Front in a Viscous Medium

Periodical : Izv. AN SSSR, Otd. Tekh. Nauk 7, 101-108, Jul 55

Abstract : Presents a theoretical analysis of the stability of flow of a viscous, incompressible fluid containing a discontinuous flame front. Obtains boundary conditions for the problem by assuming uniform mass flow and momentum and uniform velocity of the flame propagation on the disturbed surface of the front. Four graphs; formulae. Four references, 1 USSR.

Institution :

Submitted : 20 April 1955

"AUTHORS!" V. Dityakin, Yu. F., Yagodkin, V. I. (Moscow). 24-4-16/34  
TITLE: Influence of periodic oscillations of the speed and the density of the medium on the decomposition of a liquid stream (Vliyaniye periodicheskikh kolebaniy skorosti i plotnosti sredy na raspad zhidkikh struy).  
PERIODICAL: "Izv. Ak. Nauk, Otd. Tekh. Nauk" (Bulletin of the Ac. Sc., Technical Sciences Section), 1957, No.4, pp.115-120 (USSR).  
ABSTRACT: In a number of practical cases involving the decomposition of a stream into drops, transition of a laminar flow into a turbulent one, etc., it is of considerable interest to study the influence of oscillations in the flow speed on the stability of the flow. It is also considered of interest to evaluate theoretically the influence of density oscillations of the gaseous medium surrounding the liquid stream on the decomposition of the stream. Such oscillations occur, for instance, in the combustion chambers of jet engines and may bring about a change of the conditions of the working process. The influence is theoretically investigated of the fluctuations in the speed and density of the medium surrounding the cylindrical liquid flow on the decomposition of the flow. The solution is effected by means of the method of small disturbances. It is shown that in the case of fluctuations in the speed of flow of a liquid and of the density of the medium the character and the width of the wave range of unstable

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Influence of periodic oscillations of the speed and the density of the medium on the decomposition of a liquid stream (Cont.)

24-4-16/34

disturbances change and an infinite number of individual zones of unstable disturbances occur instead of the single zone which is characteristic in absence of fluctuations. The optimum wave length proved to be lower than that prevailing in absence of fluctuations, i.e. the fluctuations in the flow speed and density of the medium lead to a reduction of the dimensions of the drops produced during decomposition of the stream. The conclusions obtained from the theoretical analysis are qualitatively confirmed by the experimental results of Mieses, C. (Jet Propulsion, Vol.25, No.10, pp.524-530, 534, 1955). The authors consider the stability of a circular cylindrical flow of a liquid and the coordinate system is so chosen that the stream is stationary and that the surrounding medium has a certain speed  $U$ . It is assumed that this speed and the density of the surrounding medium are periodic functions of time. The liquid is assumed as being ideal and the flow as being a purely potential flow. L.N.Britneva has assisted in the calculations. There are 3 graphs, 7 references, 6 of which are Russian.

Card 2/2

SUBMITTED:  
AVAILABLE:

July 23, 1956.

S/179/60/000/03/019/039  
E081/E441

## AUTHORS:

Dityakin, Yu.F. and Yagodkin, V.I. (Moscow)

## TITLE:

Potential Flow of a Liquid Entering a Plane Channel  
Through Permeable Walls

## PERIODICAL:

Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh  
nauk, Mekhanika i mashinostroyeniye, 1960, Nr 3,  
pp 126-131 (USSR)

## ABSTRACT:

Fig 1 shows the scheme of flow of liquid in the channel.  
In many cases the supply velocity through the permeable  
walls AC, BD is constant or changes only slightly  
along the length of the wall. It is therefore assumed  
constant and equal to  $v_o$ . The problem is analysed by  
conformal transformation (Fig 2), complex variable  
methods and elliptic integrals. The final equation found  
for flow  $v_\eta$  along the permeable walls is Eq (2.10)  
with  $\lambda$  given by Eq (2.11). Fig 4 shows the  
relationship between  $v_\eta/v_o \lambda$  and  $\lambda/\lambda$  for various  
values of  $\lambda$ , calculated from Eq (2.10) and (2.11);  
 $\lambda$  is given by Eq (1.2). For the larger values of  $\lambda$ ,  
the relationship is linear over the greater part of its

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E081/E441

Potential Flow of a Liquid Entering a Plane Channel Through  
Permeable Walls

length. There are 4 figures and 5 references,  
3 of which are Soviet and 2 English.

SUBMITTED: February 10, 1960

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Card 2/2

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10.8660

S/040/60/024/005/007/028  
C111/C222

AUTHOR: Yagodkin, V.I. (Moscow)

TITLE: On the Theory of Stability of the Flows of a Tenacious Fluid  
in ChannelsPERIODICAL: Prikladnaya matematika i mehanika, 1960, Vol.24, No.5,  
pp.865-872

TEXT: With the aid of the method of (Ref.1) the author investigates the stability of almost parallel flows with unsymmetric velocity profiles in a channel (these appear e.g. then if by porous walls of the channel there appear supplies with different velocities) in plane or ring-shaped channels. The difficulties resulting from the fact that the unsymmetric disturbances cannot be split up into a symmetric and an antisymmetric part are overcome by the investigation of the asymptotic behavior of the solutions of the equation of Orr-Sommerfeld. Let the velocity profile in the channel be given by figure 1.

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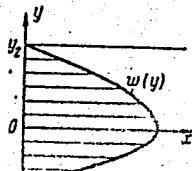


Fig. 1

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## On the Theory of Stability of the Flows of a Tenacious Fluid in Channels

Let  $\alpha = \frac{2\pi H}{\lambda}$  be the wave number,  $\lambda$  be the wave length of the disturbance,  $H$  be the width of the channel;  $R = \frac{UH}{v}$  be the Reynolds number of the flow corresponding to the maximal velocity  $U$  in the considered cross section,  $v$  be the kinematic tenacity,  $w = \frac{u}{U}$  be the velocity profile in a channel,  $c$  be the real dimensionless wave velocity.

Let  $\varphi_k$  ( $k=1,2,3,4$ ) be the solutions of the equation of Orr-Sommerfeld  $\varphi_{k1} = \varphi_k(y_1)$ ,  $l=1,2$  be their values in the points  $y_1, y_2$ . Let the parameter  $\alpha R$  be large, i.e.  $\varepsilon = (\alpha R)^{-1/3}$  be small. Let  $\eta = (y - y_c)/\varepsilon$ , where  $y_c$  is the coordinate of the critical point. Let

$$(1.13) \quad F(z) = \int_{-\infty}^{-z} \int_{-\infty}^{\eta} \sqrt{5} H_{1/3}^{(1)} \left[ \frac{2}{3} (i \zeta)^{3/2} \right] d\zeta d\eta / (-z) \int_{-\infty}^{-z} \int_{-\infty}^{\eta} \sqrt{5} H_{1/3}^{(1)} \left[ \frac{2}{3} (i \zeta)^{3/2} \right] d\zeta d\eta$$

where  $H_{1/3}^{(1)}$  is a Hankel function of first kind. Let  
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On the Theory of Stability of the Flows of a Tenacious Fluid in Channels

$$(1.22) \quad y_1 - y_{cl} = - \frac{c}{w'_1} (1 + \lambda_1) \quad (l=1,2),$$

where the  $\lambda_1$  are determined by the given profile and c. Let

$F_1 = (1 + \lambda_1)F(z_1)$ ,  $z_1 = -\alpha_{01}\eta_1$ ,  $\alpha_{01} = (w'_{cl})^{1/3}$ ,  $w'_{cl}$  is the inclination of the profile in the critical point;  $\Phi_1 = 1/(1-F_1)$ . With these notations, in the case  $\varepsilon \ll 1$ , for the calculation of the eigenvalues of the equation of Orr-Sommerfeld, the author obtains the approximate

$$(1.24) \quad c^2 w'_1 w'_2 L_1 + c w'_1 L_2 (\Phi_2 - 1) - c w'_2 L_3 (\Phi_1 - 1) + \alpha^2 L_4 (\Phi_1 - 1)(\Phi_2 - 1) = 0,$$

where the  $L_i$  are defined by

$$(1.20) \quad \begin{aligned} L_1 &= H_+^{(1)} K_-^{(2)} - H_-^{(2)} K_+^{(1)}, & L_2 &= H_+^{(1)} K_+^{(2)} - \alpha^2 H_-^{(2)} K_-^{(1)} \\ L_3 &= H_+^{(2)} K_+^{(1)} - \alpha^2 H_-^{(1)} K_-^{(2)}, & L_4 &= H_-^{(1)} K_+^{(2)} - H_-^{(2)} K_+^{(1)}; \end{aligned}$$

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On the Theory of Stability of the Flows of a Tenacious Fluid in Channels  
the H and K are given by

$$(1.18) \quad h_n(y_1) = H_n^{(1)}, \quad \sum_{n=0}^{\infty} \alpha^{2n} H_{2n}^{(1)} = H_+^{(1)}, \quad \sum_{n=0}^{\infty} \alpha^{2n} H_{2n+1}^{(1)} = H_-^{(1)},$$

$$(1.19) \quad k_n(y_1) = K_n^{(1)}, \quad \sum_{n=0}^{\infty} \alpha^{2n} K_{2n}^{(1)} = K_+^{(1)}, \quad \sum_{n=0}^{\infty} \alpha^{2n} K_{2n+1}^{(1)} = K_-^{(1)},$$

where  $l = 1, 2$  and  $h_0 = k_0 = 1$ ,  $h_1 = \int_0^y ady$ ,  $k_1 = \int_0^y a^{-1} dy$ ,

$$h_{2n}(y) = \int_0^y a^{-1} \int_0^y a h_{2n-2}(y) dy dy, \quad h_{2n+1}(y) = \int_0^y a \int_0^y a^{-1} h_{2n-1}(y) dy dy,$$

$$k_{2n}(y) = \int_0^y a \int_0^y a^{-1} k_{2n-2}(y) dy dy, \quad k_{2n+1}(y) = \int_0^y a^{-1} \int_0^y a k_{2n-1}(y) dy dy,$$

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On the Theory of Stability of the Flows of a Tenacious Fluid in Channels

$$a = (w - c)^2.$$

(1.24) can be simplified if its real part is calculated with the exactness  $O(r_1)$  and its imaginary part with  $O(r_1^2)$ , where  $\alpha^2 = O(r_1)$  and  $\phi = O(1) + iO(r_1)$ . For the prescribed exactness it is sufficient to put

$$(2.21) \quad H_{+}^{(1)} = 1 + \alpha^2 K_1^{(1)} H_{10}^{(1)}, \quad H_{10}^{(1)} = \int_0^{y_1} w^2 dy$$

$$H_{-}^{(1)} = H_{10}^{(1)}, \quad K_{+}^{(1)} = 1, \quad K_{-}^{(1)} = K_1^{(1)} \quad (l=1,2),$$

where the real and imaginary part of  $K_1^{(1)}$  are given by

$$(2.22) \quad K_{1r}^{(1)} = \frac{1}{w_1^2 c}, \quad K_{1i}^{(1)} = \pi \frac{w_{cl}^n}{w_{cl}^3}.$$

Using these expressions for the calculation of  $L_k$  then one obtains from the real part and imaginary part of (1.24):  
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On the Theory of Stability of the Flows of a Tenacious Fluid in Channels

$$(2.23) \quad \frac{\omega^2 H_{10}}{c} = \frac{w'_1 \phi_{2r} - w'_2 \phi_{1r}}{\phi_{1r} \phi_{2r}}, \quad \frac{z_1}{z_2} = \frac{w'^2}{w'_1} \left( \frac{\phi_{1r}}{\phi_{2r}} \right)^2,$$

where  $H_{10} = H_{10}^2 - H_{10}^{(1)}$ ,  $z_1 = \phi_{1i} + cw'_1 K_{1i}^{(1)}$ ,  $\phi_{1r}$  and  $\phi_{1i}$  are the real and imaginary part, respectively, of  $\phi_1$  ( $i=1,2$ ). For the symmetric profile ( $w'_2 = -w'_1$ ,  $\phi_2 = \phi_1$ ) one obtains the result of C.C.Lin (Ref.2):

$$(2.24) \quad \frac{\omega^2 H_{10}}{2c} = \frac{w'_1}{F_{1r}}, \quad z_1 = 0.$$

An example is considered. The method can be extended to stability investigations of axial flows in a ring channel if the inner radius of the channel can be compared with the width of the channel. There are 3 figures and 6 references, all non-Soviet.

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On the Theory of Stability of the Flows of a Tenacious Fluid in Channels  
[Abstracter's note: (Ref.1) is a paper of C.C.Lin in Quart. Appl. Math.,  
1945-46, Vol.3. (Ref.2) concerns C.C.Lin, Theory of Hydrodynamic  
Stability.]

SUBMITTED: June 9, 1960

X

Card 7/7

YACODKIN, V.I. (Moskva)

Gas flow in pipes with porous walls during burning. Inzh.zhur.  
1 no.3:165-169 '61.

(Pipe-Hydrodynamics)

(MIRA 15:2)

34372

11.7420

S/207/62/000/001/013/018  
B108/B104

AUTHORS: Borodin, V. A., Dityakin, Yu. F., Yagodkin, V. I. (Moscow)  
TITLE: Disintegration of a spherical drop in a gas blast  
PERIODICAL: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 1,  
1962, 85 - 92

TEXT: The authors calculate the axially symmetrical perturbations of a drop of an ideal liquid moving in (or flowed around by) another ideal liquid. The coordinate origin is to be in the center of the spherical drop. Starting from the Laplace equation in spherical coordinates, the Weber's number and the shape of the perturbations are calculated (Table 2). Similar results have been obtained for the motion of a gas bubble in a liquid (Ref. 4, see below). The results show that the pressure distribution over the surface of the drop has only a slight effect on the splitting of the drop. This is due, however, to the assumption of a potential flow embedding the drop. The authors thank L. N. Britnev for assistance in the calculations. There are 1 figure, 2 tables, and 8 references: 3 Soviet and 5 non-Soviet. The references to the English-  
Card (16)

Disintegration of a spherical drop...

S/207/62/000/001/013/013  
B108/B104

language publications read as follows: Hinze J. O. Amer. Inst. Chem. Eng. Journ., 1955, I, pp. 200 - 209; Isshiki N. Rept. Transp. Techn. Research Inst., 1959, no. 35; Ref. 4: Hartunian R. A., Sears W. R. Journ. Fluid Mech., 1957, v. 3, Part I, pp 27 - 47.

SUBMITTED: September 28, 1961

Table 2. Weber's number  $W$  and shape of perturbation.  
Legend: (A) Shape of perturbation (either - or). (1) Motion in direction of stream, (2) splitting in the stream direction or formation of tore, (3) formation of two drops and a tore or of one tore, (4) formation of two drops and two tores or of one tore.

Card 2/6 Z

ACCESSION NR: APLQD1198

S/0207/64/000/003/0100/0101

AUTHORS: Borodin, V. A. (Moscow); Dityakin, Yu. F. (Moscow); Yagodkin, V. I. (Moscow)

TITLE: Mechanisms of shattering of drops moving in gas flow

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 3, 1964, 100-104

TOPIC TAGS: drop shattering, gas flow, ideal fluid, spherical drop, Weber number

ABSTRACT: In a previous paper (O droblenii sfericheskoy kapli v gazovom potokе. PMTF, 1962, No. 1) the authors made a theoretical study of unstable axisymmetric forms of perturbations of a spherical drop of ideal liquid flowed around by another ideal liquid, leading to its shattering. There they used the method of small perturbations to solve the problem. They found the critical value of the Weber number and determined the forms of neutral perturbations. In the present paper they consider the case of intensifying perturbations and also their forms for various values of the Weber number. On the basis of equations from the previous work, they conclude that for values of the Weber number  $1.63 < W < 1000$  there are three possible forms of intensifying perturbations. From their deductions on the

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ACCESSION NR: AP4041198

various forms of perturbations arising with motion of a liquid spherical drop in the medium of another liquid, they find that the essential role in the shattering process is played by the effect of oscillation and discontinuity on part of the liquid torus. They investigate the fact that the number of crests arising on the torus can be two, three, or more, decreasing as the diameter of the torus decreases. Comparison of their results with experiments can be made for very slowly moving toruses. Orig. art. has: 4 figures and 13 formulas.

ASSOCIATION: none

SUBMITTED: 16Dec63

SUB CODE: ME

NO REF Sov: 003

ENCL: 00

OTHER: 002

Card 2/2

L 22633-65 EWP(n)/EPF(n)-2/EMT(1)/EMA(c) Pd-1/Pu-4 MM  
ACCESSION NR: AP5002865

S/0207/64/000/005/0059/0065

AUTHOR: Borodin, V. A. (Moscow); Britneva, L. N. (Moscow);  
Dityakin, Yu. F. (Moscow); Yagodkin, V. I. (Moscow)

B

TITLE: Breakup of liquid jet overflowed by a gas stream

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 5,  
1964, 59-65

TOPIC TAGS: liquid jet, liquid drop, transverse flow, fuel injection,  
jet breakup

ABSTRACT: The breakup of a cylindrical ideal liquid jet (radius  $a$ ,  
density  $\rho_1$ ) by the transverse flow of another ideal fluid (density  
 $\rho_2$ , velocity  $U_0$ ) was studied analytically. Two types of waves propa-  
gating along the jet surface were considered: 1) tangential waves  
deforming the jet in the plane of its cross section; 2) longitudinal  
waves. Time-dependent potential functions are introduced for the  
jet and the fluid in cylindrical coordinates, and the following solu-  
tion is assumed:

$$\Phi(r, \varphi, t) = u(r, \varphi) e^{-i\omega t}.$$

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ACCESSION NR: AIP5002865

The continuity of the normal component of the velocity at the interface is used as a boundary condition. From Laplace's equation a generalized solution is obtained in the form

$$u_1 = \sum_{m=0}^{\infty} A_m R^m e^{im\theta}, \quad u_2 = \sum_{m=0}^{\infty} B_m R^{-m} e^{im\theta}.$$

For  $m = 0$  and  $R = 1$  the velocity of surface rise of the jet is given by

$$v_{r_0} = \frac{1}{2} \sum_{m=0}^{\infty} m A_{1m} R^{m-1} \cos m\theta e^{-im\theta}$$

and the equations of nodal lines on the perturbed jet take the form of

$$\sum_{k=0}^{\infty} m A_{1k} \cos m\theta = 0$$

$$(m = 2k \text{ and } m = 2k + 1)$$

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ACCESSION NR: AP5002865

Numerical calculations show that at  $2 < W < 27.6$  ( $W$  = Weber number), four nodal lines appear on the jet surface and two nodal lines at  $0.656 < W < 1.24$ . To determine the wave propagation along the jet, the stream function is assumed to have the form

$$\Phi(r, \varphi, z, t) = u(r, \varphi) e^{-i\omega t + ikz}$$

Substituting in the cylindrical Laplace equation, the solution is obtained in a Bessel function of imaginary arguments. Numerical results are obtained for  $W = 5$  and  $10$ . Orig. art. has: 4 figures and 46 formulas.

[04]

ASSOCIATION: none

SUBMITTED: 22May64

ENCL: 00

SUB CODE: ME

NO REF Sov: 007

OTHER: 004

ATD PRESS: 3170

Card 3 / 3

ACCESSION NR: APL022656

S/0207/64/000/001/0105/0108

AUTHOR: Yagodkin, V. I. (Moscow)

TITLE: Approximate computation of gas flow in channels with porous walls

SOURCE: Zhurnal priklad. mekhan. i tekhn. fiz., no. 1, 1964, 105-108

TOPIC TAGS: gas flow, porous wall channel, one dimensional flow, flame front, vaporization, compressible gas, constant pressure, kinematic viscosity, Reynolds number, velocity profile

ABSTRACT: Flows of compressible gas in channels often cannot be considered one-dimensional, for example, in the presence of a flame front, with gas flow from the walls during the time of their vaporization or burning, and also in channels with porous walls. If the area of the cross section of the channel and the outflow velocity of the gas are constant and the compressibility of the gas is negligible, then in many cases the equations of motion allow precise solutions. For more complicated flows, in channels of variable section or for variable outflow velocity of the gas, approximate computational methods are used. In approximate methods, one generally assumes that the pressure in any section is constant. The

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ACCESSION NR: AP4022656

use of an approximate method for computing flow in a channel with porous parallel walls gives results which coincide with the exact ones. The author uses an approximate method to compute gas flow in channels with porous walls with consideration of the compressibility of the gas. He studies flow in a plane channel with width  $h(x)$ , formed as a result of flow of gas out from the wall with normal component of velocity  $v_0(x)$ . The channel is symmetric with respect to the  $x$  axis. He assumes that the effect of the viscosity of the gas on the flow is unessential, so that the equations of motion of nonviscous gas may be used. For incompressible fluid, it has been shown theoretically that with a Reynolds number  $R_o = v_0 h / \nu \rightarrow \infty$  (where  $\nu$  is the kinematic viscosity of the gas) the condition of tendency to zero of the tangent velocity component of flow on the walls of the channel is kept. This conclusion has been verified experimentally by comparison of the velocity profiles. In the approximate theory of compressible gas flow the author assumes that this condition is also satisfied. Experiments indicate that the effect of perturbation of the flow by turbulence on the flow in channels with porous walls is unessential. Therefore he assumes that on any flow line coming from the point  $x_1$  of the channel wall, the Bernoulli equation is satisfied. Using standard procedures, the author derives, in a simple manner, formulas from which can be deter-

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ACCESSION NR: AP4022656

mined the velocity field. He then treats in greater detail the case of a constant width channel and compares the results with experimental data. Orig. art. has: 5 figures and 25 formulas.

ASSOCIATION: none

SUBMITTED: 20Jul63

DATE ACQ: 08Apr64

ENCL: 00

SUB CODE: AI

NO REF SOV: 004

OTHER: 003

Card 3/3

L-18881-66 EWP(m)/EWP(k)/EWT(1)/EWT(m)/ETC(m)-6/T/EWA(d)/EWA(1)/EWP(w)/EWP(v) EM/  
ACC NP: AP6009049 MM/JW/WE SOURCE CODE: UR/0207/66/000/001/0058/0066

AUTHOR: Borodin, V. A. (Moscow); Dityakin, Yu. F. (Moscow); Yagodkin, V. I. (Moscow)

ORG: none

78  
B

TITLE: Stability and disintegration of a cylindrical liquid film in a gaseous medium

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 1, 1966, 58-66

TOPIC TAGS: swirl atomizer, fuel injection, fuel injector, combustion, propulsion

ABSTRACT: To study the problem of liquid injection by swirl atomizers, an analysis was made of the break-up of a cylindrical liquid sheet issuing from a nozzle<sup>1/2</sup> into a stagnant medium. Solutions were plotted in terms of the fluctuation increment vs. the wave number at various Weber numbers ranging from 2 to 15. Based on the results, the following conclusions were drawn: at small Weber numbers at the nozzle exit, waves, which are in the same phase, are generated on the outer and inner surface of the cylindrical sheet. Since the fluctuation amplitude increases rapidly, the annular liquid sheet is transformed into a continuous jet which disintegrates according to previously outlined mechanisms. At Weber numbers from 3-10, the fluctuations have the same wavelength as the thickness of the sheet so that the sheet expands considerably and thus can disintegrate. At  $We > 10$ , the wavelengths of the fluctuations are much shorter than the film thickness and the fluctuations on the inner

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ACC NR: AP6009049

and outer surfaces are either in the same or in a different phase. In this case,  
droplets detach from the cylindrical sheet without causing disintegration. Orig.  
art. has: 9 figures and 50 formulas. [PV]

SUB CODE: 21/ SUBM DATE: 28Oct65/ ORIG REF: 002/ OTH REF: 002/ ATD PRESS:  
4217

Card

2/2 SC

CHERKOVETS, V.N.; YAGODKIN, V.N., red.; OHIKNAVEROVA, A.A., red.izd-va;  
GOROKHOVA, S.S., tekhn.red.

[Political economy; materials for a lecture on the course of political economy] Predmet politicheskoi ekonomii; materialy k lektsii po kursu politicheskoi ekonomii. Moskva, Gos.izd-vo "Sovetskaiia nauka," 1959. 63 p.  
(Economics--Study and teaching)

YAGODKIN, Vladimir Nikolayevich; VOLKOV, F.M., red.; OZIRA, V.Yu.,  
red.; YERMAKOV, M.S., tekhn.red.

[Socialist reproduction] Sotsialisticheskoe vospriyvostvo.  
Moskva, Izd-vo Mosk.univ., 1960. 74 p.

(MIRA 14:2)

(Economics)

YAGODKIN, V.N.

The theory of socialist production of the means of production must be thoroughly and scientifically worked out ("Problems of socialist production of the means of production." Reviewed by V.N.IAgodkin). Vest.Mosk.un.Ser.8: Ekonom. filos. 15 no.3:88-92 My-Je '60.  
(MIRA 13:6)

(Economics)

YAGODKIN, Vladimir Nikolayevich; SHVEYTSER, Ye.K., red.; MURASHOVA,  
V.A., tekhn. red.

[Production of relative surplus value; comments on the fourth  
section of the first volume of Karl Marx's "Capital."] Pro-  
izvodstvo otnositel'noi pribavochnoi stiimosti; kommentarii k  
IV otdelu I toma "Kapitala" K Marksya. Moskva, Gos.izd-vo  
"Vysshaia shkola," 1961. 60 p. (MIRA 15:2)  
(Economics)

ATYAKIN, A.K.; LITVINOV, N.N.; YAGODKIN, V.V.

Core barrels for obtaining cores with undisturbed formation conditions. Neft. khoz. 40 no.8:5-8 Ag '62. (MIRA 17:2)

SIDOROV, M.N., kand.tekhn.nauk; YAGODKIN, V.Ya.

Requirements of diagrams for modern electric propulsion  
systems on icebreakers and ships sailing in ice conditions.  
Trudy NTO sud.prom. 8 no.5:73-80 '59. (MIRA 13:7)  
(Ship propulsion, Electric)  
(Ice-breaking vessels)

YAGODKIN, V.Ya.

Analytical determination of the rotational moment of resistance  
of a screw propeller during its interaction with ice. Probl.  
Arkt. i Antarkt. no.13:79-88 '63. (MIRA 16:9)  
(Propellers--Testing) (Ice on rivers, lakes, etc.)

OYVIN, I.A.; BALUDA, V.P.; SHEGEL, S.M.; TOKAREV, O.Y.; VENGLINSKAYA, E.A.;  
YAGODKINA, E.G.

Anticoagulant and antiphlogistic properties of phlogodym  
(neodymium pyrotechol disulphonate). Acta physiol. acad. sci.  
Hung. 24 no.3:373-379 '64

1. Department of Pathological physiology, Kuban Medica. Institute,  
Krasnodar, USSR.

\*

OYVIN, I.A.; BALUDA, V.P.; SHEGEL, S.M.; TOKAREV, O.Y.; VENGLINSKAYA, E.A.  
YAGODKINA, E.G.

Anticoagulant and antiphlogistic properties of phlogodynam  
(neodymium pyrocatechol disulphonate). Acta physiol. acad.  
sci. Hung. 24 no.3:373-379 '64

1. Department of Pathological Physiology, Kuban Medical Institute  
Krasnodar, USSR.

KHAMSKIY, Ye.V.; YAGODKINA, G.N.

Effect of organic substances on the hygroscopicity of ammonium nitrate. Zhur. prikl. khim. 36 no.12:2620-2625 D'63.  
(MIRA 17:2)

YAGODKINA, N. I.

YAGODKINA, N. I. -- "A Study of Phagocytic Indexes in Rheumatic Endomyocarditis and Heart Defects." Odessa State Medical Inst imeni N. I. Pirogov. Odessa, 1955. (Dissertation for the Degree of Candidate in Medical Sciences)

SO: Knizhnaya Letopis', No 1, 1956

LEVINA, TS.A., prof., GRUZINA, Ye.A., dots., VASIL'YEVA, N.A., ROMANOVSKAYA, A.I.,  
YAGODKINA, N.I., PAVLOVA, O.V.

Treating stenocardia with nitranol. Sov.med. 22 no.8:119-126 Ag '58  
(MIRA 11:10)

l. Iz propedevticheskoy terapevticheskoy kliniki (zav. prof.  
TS.A. Levina) Odeskogo meditsinskogo instituta imeni M.I. Pirogova  
(dir. prof. I.Ya. Deyneka).

(ANGINA, PECTORIS, ther.

aminotrate (Rus))

(NITRITES, ther. use

aminotrate in angina pectoris (Rus))

YAGODKINA, N.I.

Changes in skin temperature under the influence of nitranol.  
Khim. i med. no.16:54-56 '61. (MIRA 17:8)

LEVINA, TS.A., prof.; GRUZINA, Ye.A., dotsent; DMITRIYEVA, I.T.;  
ROMANOVSKAYA, A.I.; SIVOKONEVA, N.A.; YAGODKINA, N.I.

Treatment with persanthine of stenocardia. Vrach.delo no.10:20-26  
0 '62. (MIRA 15:10)

1. Kafedra propedevtiki vnutrennikh bolezney (zav. - prof. TS.A.  
Levina) Odesskogo meditsinskogo instituta.  
(ANGINA PECTORIS) (PYRIMIDINES)

LEVINA, TS.A., prof.; GRUZINA, Ye.A., dotsent; DMITRIYEVA, I.T., assistent;  
ROMANOVSKAYA, A.I., assistent; SIVOKONEVA, N.A., assistent;  
YAGODKINA, N.I., assistent (Odessa)

Clinical test of a new spasmolytic substance limit in steno-  
cardia. Klin.med. 40 no.5:67-70 '62. (MIRA 15:8)

1. Iz ob'yedinennoy kafedry propedevtiki vnutrenniky bolezney  
(zav. - prof. T.S.A. Levina) Odesskogo meditsinskogo instituta  
imeni N.I. Pirogova (dir. - zasluzhennyy deyatel' nauki prof.  
I.Ya. Deynaka).

(ANGINA PECTORIS) (VASODILATORS)

LEVINA, TS.A., prof.; GRUZINA, Ye.A., dotsent; DMITRIYEVA, I.T.;  
ROMANOVSKAYA, A.I.; SIVOKONEVA, N.A.; YAGODKINA, N.I.

Study of the effectiveness of the spasmolytic agent dietafen  
(etafen) in stenocardia. Sov. med. 27 no.12:103-106 O '64.

l. Ob'yedinennaya kafedra propedevtiki vnutrennikh bolezney  
(zav.- prof. IS.A. Levina) Odesskogo meditsinskogo instituta  
imeni Pirogova. (MIRA 18:11)

KOSYAKOV, B.V.; SHAKHTUROV, P.I.; YAGODKINA, N.Ya.

Determining the optimum pattern of holes in testing operations in the  
Zyryanovsk deposit. Izv.AN Kazakh.SSR. Ser.geol. no.5:83-90 '62.

(Zyryanovsk District—Ore deposits)

(MIRA 15:12)

SOV/24-58-10-18/34

AUTHORS: Klassen, V. I., Yagodkina, T. K. (Moscow)

TITLE: Peculiarities in the Flotation Properties of Pyrite and  
Marcasite from Coal Deposits (Osobennosti flotatsionnykh  
svoystv pirita i markazita ugol'nykh mestorozhdeniy)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh  
nauk, 1958, Nr 10, pp 110-114 (USSR)

ABSTRACT: The authors point out that many reagents effective in the flotation of ore pyrite fail to produce appreciable desulphurization when coals are being floated. They describe their experiments carried out to elucidate the reasons for this and study the differences in the properties of pyrite and marcasite of coal and ore origin. Chemical, mineralogical and X-ray analyses showed (table) that the coal minerals contained appreciable quantities of bitumens and more sulphate sulphur and that it was more porous. The authors consider that the presence of organic materials during the formation of the minerals must have affected the flotation properties of the sulphides. The reactions of the minerals with ethyl xanthate and lime was studied with the aid of radioactive

Card 1/3

SOV/24-58-10-18/34

Peculiarities in the Flotation Properties of Pyrite and Marcasite  
from Coal Deposits

tracers ( $S^{35}$  and  $Ca^{45}$ ) using previously-described techniques (Refs 8 and 9). This work showed that coal pyrite and marcasite absorb more xanthate than does ore pyrite: the curves of absorption (and also recovery) against xanthate consumption are shown in Fig 1 for the various materials. The effectiveness of the reagent, however, was less with the coal minerals, indicating that the absorption was not of the appropriate type, and radiographic prints (Fig 2) show that the distribution of the reagent in the particle surfaces was most uneven. The authors found that calcium-ion absorption by the coal pyrite and marcasite is less than by ore pyrite for lime consumptions of under 5 kg/ton but rises rapidly above this. Fig 3 shows the calcium ion absorptions (mg/g) as functions of lime consumption and contact time in minutes (left and right-hand graphs, respectively) for the various test materials. Although the coal pyrite and marcasite absorb more xanthate in the presence of lime than does ore pyrite (left-hand graph, Fig 4), the lime has practically no effect on their flotation (right-hand graph, Fig 4). Those reagents which act as collectors for coal were found to act similarly for coal pyrite and marcasite (Fig 5) and the authors draw

Card 2/3

SOV/24-58-10-18/34

Peculiarities in the Flotation Properties of Pyrite and Marcasite from Coal Deposits

attention to the need for using the appropriate reagents for coal desulphurization by flotation. V. I. Tyurnikova advised on this work. There are 5 figures, 1 table and 15 references; 10 of the references are Soviet and 5 English.

ASSOCIATION: Institut gornogo dela AN SSSR, Moskovskiy gornyy institut (Mining Institute of the Academy of Sciences, USSR, Moscow Mining Institute)

SUBMITTED: March 3, 1958.

Card 3/3

SKLOVSKAYA, A.A., otv. red.; DREMAYLO, P.G., inzh., zam. otv.  
red.; KAMINSKIY, V.S., kand. tekhn. nauk, zam. otv. red.;  
AVETISYAN, A.N., red.; BRILLIANTOV, V.V., kand. tekhn. nauk,  
red.; GALIGUZOV, N.S., kand. tekhn. nauk, red.; GORLOV, I.P.,  
red.; GREBENSHCHIKOV, V.P., red.; DAVYDKOV, M.I., red.;  
ZVENIGORODSKIY, G.Z., red.; KARPOVA, N.N., red.; KOZKO, A.I.,  
red.; MARUSEV, P.A., red.; PONOMAREV, I.V., red.; POPUTNIKOV,  
F.A., red.; SOKOLOVA, M.S., kand. tekhn. nauk, red.;  
TURCHENKO, V.K., red.; FILIPPOV, V.A., red.; YUSIPOV, A.A.,  
red.; YAGODKINA, T.K., red.; MIRONOVA, T.A., red. izd-va;  
LOMILINA, L.N., tekhn. red.; MAKSIMOVA, V.V., tekhn. red.

[Technological trends in coal preparation] Tekhnicheskie na-  
pravleniya obogashcheniya uglei. Moskva, Gos.nauchno-tekhn.  
izd-vo lit-ry po gornomu delu, 1963. 120 p... (MIRA 16:10)

1. Gosudarstvennyy proyektno-konstruktorskiy i nauchno-  
issledovatel'skiy institut po obogashcheniyu i briketirova-  
niyu ugley. 2. Gosudarstvennyy proyektno-konstruktorskiy i  
nauchno-issledovatel'skiy institut po obogashcheniyu i brike-  
tirovaniyu ugley (for Yagodkina, Brilliantov).

(Coal preparation)

YAGODKINA, V. P.

YAGODKINA, V. P. "Asterozystis radicis on Tobacco Seedlings," Biulleten' Vsesoiuznogo Instituta Tabacinoi i Makhorochnoi Promyshlennosti imeni A. I. Mikojana, no. 115, 1934, pp. 57-64. 69.9 K86

So: SIRA SI-90-53, 15 Dec. 1953

YAGODKINA, V. P.

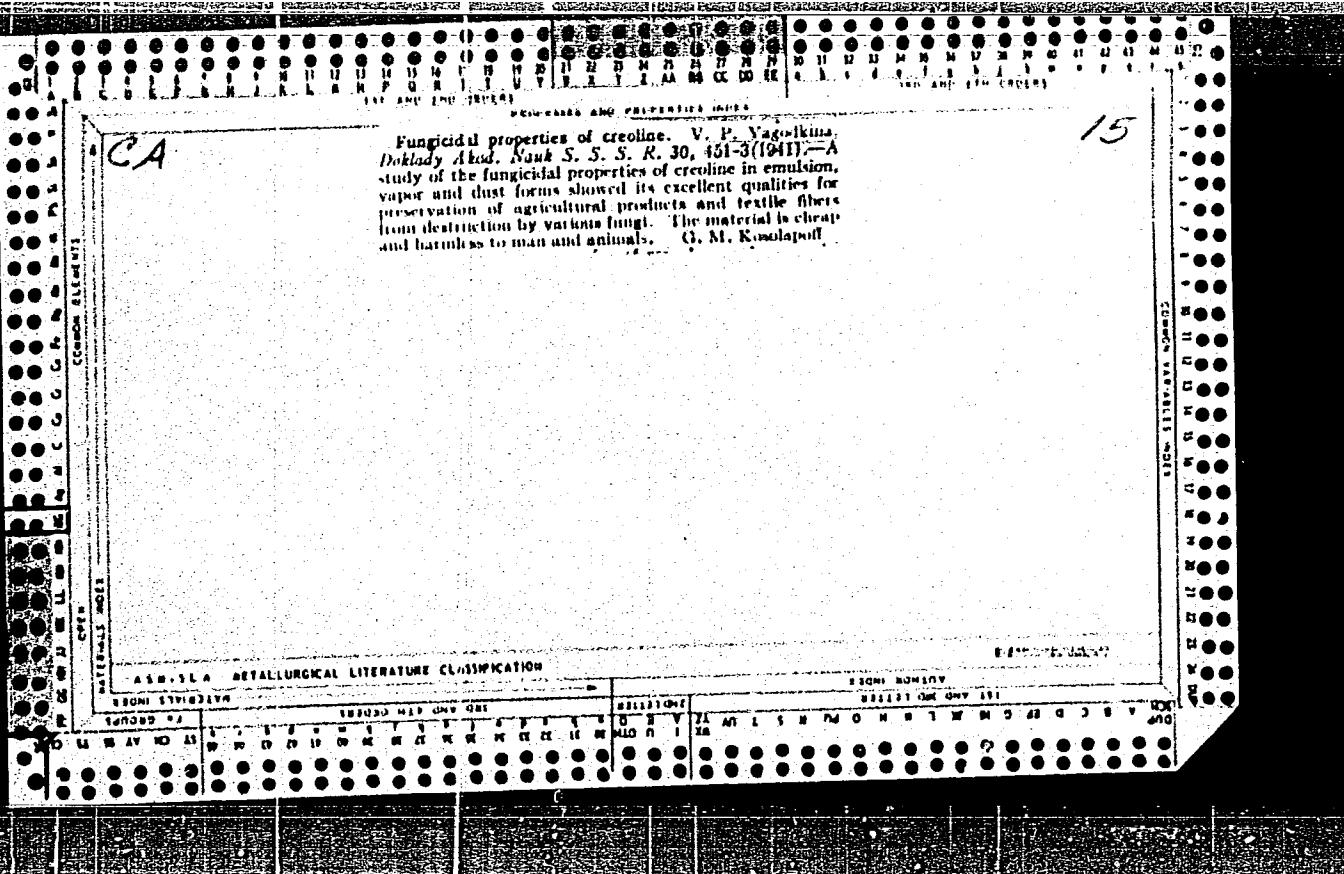
YAGODKINA, V. P. "Virus Diseases of Oil Crops," in Virus Diseases of Plants  
Collection 2, Publishing Affiliate of the All Union Institute of Plant  
Protection, Moscow, 1938, pp. 228-229. 464.32 V96 v.2

So: SIRA SI-90-53, 15 Dec. 1953

YAGODKINA, V. P.

YAGODKINA, V. P. "Virus Diseases of Sunflower," in Virus Diseases of Plants and Measures for Their Control, Works of the Conference on Virus Diseases of Plants 1940, Publishing House of the Academy of Science, USSR, Moscow, 1941, pp. 333-338. 464.32 So8

So: SIRA SI-90-53, 15 Dec. 1953



YAGODKINA, V. P.

YAGODKINA, V. P. "Importance of Clearing Fields of Stubble Which is a Source for Diseases on Oil Plants," Sbornik Maslichnye Kul'tury 1945 Goda, no. 1, 1945, pp. 46-48. 77.9 K86

So: SIRA SI-90-53, 15 Dec. 1953

YAGODKINA, V. P.

"Investigation of the Withering of the Peanut," Brief Accounts of the VNIEMK on  
Scientific Research Work During 1950, Krasnodar, 1951.

Mikrobiologiya, Vol XX, No. 5, 1951 ■■■-W-24635

YAGODINA, V. T.

"The Study of Macrosporioses and Alternarioses," Brief Accounts of the VNIBMK (All-Union Scientific Research Institute of Oleaginous Crops) on Scientific Research Work During 1950, Krasnodar, 1951.

Mikrobiologiya, Vol XX, No. 5, 1951 [REDACTED] W-24635

YAGODKINA, V. P.

""Investigation of the Withering of the Peanut", Brief Accounts of the VNIMK on Scientific Research Work During 1950, Krashodar, 1951, pp 137-140.

YAGODKIN, V. P.

Sunflowers - Diseases and Pests

Chemical control of sclerotinia in sunflowers. Dost. sel'khoz. No. 2, 1953.

Monthly List of Russian Accessions, Library of Congress  
June 1953. UNCL.

YAGODKINA, V. P. 187-191.

0-3

COUNTRY : USSR

CATEGORY :

PERIODICAL : AGR. JOUR. : RZBiol., No. 19, 1958 No. 87355

AUTHOR : Yagodkina, V. P.

INST. : All-Union Academy of Agricultural Sciences\*

TITLE : Study of Downy Mildew of Sunflower and  
Development of Methods for Its Control.ORIG. PUB. : Sb.: Kratkiy otchet o nauchno-issledov.  
rabote Vses. n.-i. in-ta maslichn. i\*\*

ABSTRACT : A dry treatment of sunflower seed with fungicides, while greatly reducing the extent of infection with downy mildew, does not prevent preservation of fungus conidia beyond the narrow zone of toxicant action and thus does not decrease the soil contamination. As a result of studies of 133 thousand hectares of sunflower plantings in the Krasnodarskiy Kray, infection of 76% of this acreage was ascertained. Only those fields were found to be sound where sunflowers had not been grown for 6-7 consecutive years, and this is the only reliable procedure of land decontamination from downy mildew. The fungus overwinters in the form of haustoria and it is only after exposure to

CARD: 1/2

\* Imeni Lenin.

\*\* efiromaslichn. kul'tur VASKhNIL za 1955 g.

Country : USSR  
CATEGORY :

ABSTRACT JOUR. : RZBiol., No. 19, 1958, No. 87355

AUTHOR :  
INST. :  
TITLE :

ORIG. PUB. :

ABSTRACT : subfreezing temperatures that it forms  
ospores and can cause infection of plants. Conidia infect  
plants only through the root system. Sunflower plants  
infected when fully developed reveal no apparent signs of  
the disease but are sources of infection of the soil and  
of planting material. -- V. P. Kholodova.

CARD: 2/2

SEMIKHNEKO, Pavel Grigor'yevich, kand.sel'skokhoz.nauk; KLYUCHNIKOV, A.I..  
kand.sel'skokhoz.nauk; TOKAREV, T.M., kand.sel'skokhoz.nauk;  
YAGOLKINA, V.P.; PITERSKAYA, A.M.; ANTONOVA, M.M., red.; DELEVA,  
V.M., tekhn.red.

[Sunflower cultivation] Kul'tura podsolnchnika. Moskva, Gos.  
izd-vo sel'khoz.lit-ry, 1960. 275 p. (MIRA 13:10)  
(Sunflowers)

OYVIN, I.A.; MILASH, G.P.; SHUBICH, M.G.; VENGLINSKAYA, Ye.A.;  
LUTSENKO, N.M.; MUKHAMEDZHANOV, I.A.; TOKAREV, O.Yu.;  
SHCHEGEL', S.M.; YAGODKINA, Ye.G. (Krasnodar)

Relation of the development of inflammation to the state of  
the blood coagulation system. Arkh. pat. 26- no.2:63-68 '64.  
(MIRA 17:8)

1. Kafedra patologicheskoy fiziologii (zav. - prof. I.A. Oyvin),  
kafedra patologicheskoy anatomii (zav. - dotsent G.P. Milash)  
i kafedra gistologii (zav. - dotsent M.G. Shubich) Kubanskogo  
meditsinskogo instituta.

1. YAGODNIKOV, N. A.
2. USSR (600)
4. Birds - Tobolsk District
7. Southern birds in Tyumen<sup>1</sup> and Tobolsk. Priroda 41 No. 11, 1952.
  
9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

1. YAGODNIKOV, N. A.
2. USSR (600)
4. Mari A.S.S.R. - Beavers
7. Beavers in the Mari A.S.S.R. Priroda No 2 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

YAGODNIKOV, N.A.

White salmon [Stenodus leucichthys nelma Pall.] in the Tura River. Zool.  
zhur. 32 no.5:1025-1026 S-0 '53. (MLRA 6:10)  
(Tura River--Whitefishes) (Whitefishes--Tura River)

ZHAKSYBAYEV, N.; FOMENKO, V.D.; ANTONOV, V.P.; SAMARTSEV, I.A.; VASIL'YEV, B.F.; YAGODNITSYN, M.A.; VENGER, M.S.

Inadequate methods of waste water analysis are retarding the improvement of the sanitary condition of reservoirs. TSvet. met. 35 no.3:86-87 Mr '62. (MIRA 15:4)

1. Direktor Zyryanovskogo svintsovogo kombinata (for Zhaksybayev).
2. Sekretar' partiynogo komiteta Zyryanovskogo svintsovogo kombinata (for Fomenko).
3. Nachal'nik obogatitel'noy fabriki Zyryanovskogo svintsovogo kombinata (for Antonov).
4. Nachal'nik tsentral'noy khimicheskoy laboratorii Zyryanovskogo svintsovogo kombinata (for Samartsev).
5. Nachal'nik byuro stochnykh vod Zyryanovskogo svintsovogo kombinata (for Vasil'yev).
6. Rukovoditel' metodicheskoy gruppy khimicheskoy laboratorii Zyryanovskogo svintsovogo kombinata (for Yagodnitsyn).
7. Gosudarstvennyy sanitarnyy inspektor po promyshlennoy gigiyene Vostochno-Kazakhstanskoy sanitarnoy epidemiologicheskoy stantsii (for Venger).

(Water--Analysis) (Reservoirs)

SERGEYEV, M.P., doktor tekhn. nauk; KAZANTSEV, G.M., inzh.; YANOVSKIY, E.V., inzh.; YAGODOV, O.P., inzh.; YARKIN, A.A., inzh.

Investigating the operating tension of the carrying system of the S-1000GP tractor with the D-493 bulldozer. Stroi, 1 dor. mash. 10 no. 9:18-20 S '65. (MIRA 18:10)

LYUBIMOVA, T.Yu., kand. khim. nauk; ZASHCHUK, I.V., kand. tekhn. nauk;  
YAGODOVSKAYA, T.V., inzh.

Acoustical methods for testing the hardening and properties of  
cement reinforced soils. Avt.dor. 21 no.10:9-11 O '58.

(MIRA 11:11)

(Road material--Testing) (Ultrasonic waves--Industrial applications)

AUTHORS:

Lyubimova, T.Yu., Yagodovskaya, T.Y.

SOV-69-20-5-11/23

TITLE:

The Role of Plastication and Hydrophobization in the Compacting of Soils (O roli plastifitsiruyushchego i hidrofobi-zuyushchego deystviya pri uplotnenii gruntov)

PERIODICAL:

Kolloidnyy zhurnal, 1958, Vol XX, Nr 5, pp 594-600 (USSR)

ABSTRACT:

Hydrophobization of soils is used to reduce the permeability of construction materials without the closing of pores by water-insoluble substances. The permeability is decreased due to the lowering of the saturation of particle surfaces as a result of the chemical adsorption of surface-active reagents [Ref. 1]. Figure 1 shows typical curves of the dependence of plastic stability and volume weight on humidity. The influence of the sodium oleate concentration on the humidity, oleate, the plastic stability, and the maximal weight of the soil skeleton is shown in Figures 2 and 3, and Table 1. The data in Table 1 demonstrates the plasticizing action of hydrophobic adsorption layers which cause a decrease in the humidity optimum. Corresponding to the decrease in humidity, the instability of the compacted soils is increased. For the investigated soils a humidity decrease of 10% caused an increase in stability of 30 - 90% and density of 1 - 3%. The physical importance of the humidity optimum consists in the peptization of relatively weak structural contacts in the soils and in the stabilization of soil particles by hydrate

SOV-69-20-5-11/23

The Role of Plastication and Hydrophobization in the Compacting of Soils

adsorption layers. The increase of the soil stability within the plasticizing concentrations of sodium oleate may be explained by the greater number of structural contacts due to the reduction of stabilizing hydrate layers. At higher sodium oleate concentrations, a transition to thick micellar hydrophilic adsorption layers of gel-like character takes place and the decrease in humidity is stopped. Experiments have shown that the fastest decrease in water absorption takes place at oleate concentrations which correspond to the maximal decrease of the humidity optimum. There are 3 graphs, 3 tables, and 8 references, 7 of which are Soviet and 1 English.

ASSOCIATION:

Vsesoyuznyy dorozhnyy nauchno-issledovatel'skiy institut  
Moskva (All-Union Scientific Research Road Institute, Moscow)

SUBMITTED:

March 10, 1957

1. Soils--Properties    2. Soils--Moisture factors

Card 2/2

LYUBIMOVA, T.Yu.; YAGODOVSKAYA, T.V.

Structure formation processes taking place in cement consolidated soils. Koll.zbir. 23 no.5:596-604 S-O '61. (MIRA 14:9)

1. Vsesoyuznyy dorozhnyy nauchno-issledovatel'skiy institut,  
Moskva.

(Soil cement)

PROSTAKOV, N.S.; YAGODOVSKAYA, T.V.; MIKHEILVA, N.N.

Infrared spectra of isomeric 1,2,5-trimethyl-4-phenyl-4-peperidinols  
and the structure of the  $\beta$ -isomer of 1,2,5-trimethyl-4-phenyl-4-peperid-  
inol. Zhur.ob.khim. 34 no.1:234-237 Ja '64. (MIRA 17:3)

1. Universitet druzhby narodov imeni P.Lumumba i Moskovskiy gosudarst-  
vennyy universitet imeni M.V.Lomonosova.

YAGODOVSKAYA, T.V.; NEKRASOV, L.I.

Infrared absorption spectrum of the products of glow discharge in oxygen.  
Zhur.fiz.khim. 37 no.10:2347-2349 O '63. (MIRA 17:2)

1. Moskovskiy gosudarstvennyy universitet.

L 6666-55	EWF(j)/EWF(m)/EP(c)/EPR/EWF(j)/EWF(q)/EWF(b) RFL/BSD/APGC(b)/S.../AFWL/BSD(gs)/ESD(t)	Pc-4/Fr-4/Ps-4 JD/WW/JFW/RM
ACCESSION NR: AP4042596	(Moscow);	S/007G/04/038/007/1750/1756
AUTHOR: Yagodovskaya, T. V., Nekrasov, L. A. (Moscow)		68 67
TITLE: The higher peroxide of hydrogen and frozen radicals. VIII. Infrared spectrum of peroxide-radical condensates which are formed from the dissociated vapors of water and hydrogen peroxide.		
SOURCE: Zhurnal fizicheskoy khimii, v. 38, no. 7, 1964, 1750-1756		
TOPIC TAGS: hydrogen peroxide, free radicals, infrared spectroscopy		
ABSTRACT: Despite numerous data which indicate the existence of a higher peroxide of hydrogen ( $H_2O_2$ ), for final verification of this fact additional independent methods are still required. This article presents the results of infrared spectral studies of peroxide-radical condensates. In the investigation the dissociation products of water and hydrogen peroxide were directed at a rock salt plate, mounted in a copper block and cooled by liquid nitrogen (-190C). The temperature was measured with a copper-constantan thermocouple. This block was mounted in the center of the vacuum cell with rock salt windows. The cell was placed in front of the input slit of a single beam spectrometer IKS-11, modified in such a way that		
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L 6666-65

ACCESSION NR: AF4042596

the spectrum in 650 .. 3500 cm<sup>-1</sup> was recorded automatically on a potentiometric recorder EPP-0.9. Prior to each experiment, calibration of the instrument was checked by CO<sub>2</sub> and H<sub>2</sub>O vapor bands. The accuracy of the determination of the position of spectra bands was  $\pm 3$  cm<sup>-1</sup>. In this work 82 % H<sub>2</sub>O<sub>2</sub> and doubly distilled water were used. The infrared spectrum of condensates, synthesized from dissociated water vapor and hydrogen peroxide vapor differs from the spectra of initial materials (see fig. 1 of the enclosure). The comparison of the obtained data with infrared spectra of H<sub>2</sub>S<sub>2</sub>, D<sub>2</sub>O<sub>2</sub> and normal paraffins permits the conclusion that absorption bands at 900, 920, 927, 936, 962, 1115, 1128, 1150, 2362 cm<sup>-1</sup>, which do not belong to either ice or to hydrogen peroxide, are associated with the formation of H<sub>2</sub>O<sub>4</sub> in the peroxide-radical condensate. Orig. art. has: 1 table and 3 figures.

ASSOCIATION: Moskovskiy gosudarstvenny universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 07Jun63

ENCL: 01

SUB CODE: IC

NO REF SOV: 007

OTHER: 023

Card 2/3

T 6666-65

ACCESSION NR: A4042596

ENCLOSURE: 01



Fig. 1. Infrared absorption spectrum at -190 °C.  
1 - 100% transmission, 2 - absorption of ice, 3 - absorption of hydrogen peroxide,  
4 - absorption of peroxide-radical condensate, 5 - 0 % transmission

Card 3/3

L 58394-65	ENG(1)/ENT(m)/EPP(c)/EPR/EMP(j)/r/EMP(t)/EMP(s) 2c-4/Pr-4/Ps-4 IJP(c)/RPL JD/1W/AM		
ACCESSION NR: AP5016498		UR/0189/65/000/003/0020/0022	
AUTHOR: Nekrasov, L. I.; Yagolkovskaya, T. V.			40 38 B
TITLE: Low-temperature reactions of atoms and radicals			
SOURCE: Moscow, Universitet. Vestn. Seriya 2. Khimiya, no. 3, 1965, 20-22			
TOPIC TAGS: hydrogen peroxide, hydrogen tetroxide, atomic hydrogen, glow discharge			
ABSTRACT: In order to determine whether concentrated normal hydrogen peroxide is decomposed under conditions prevailing when H <sub>2</sub> O <sub>4</sub> is obtained, experiments were performed in which solid 87% H <sub>2</sub> O <sub>2</sub> at -196°C was exposed to the action of atomic hydrogen in a hydrogen discharge. Hydrogen peroxide was deposited on the walls of the trap in two ways: in the form of drops, with subsequent evacuation at zero C and cooling to -196°, and by evaporation in a vacuum at a vapor pressure of 0.5 mm Hg and condensation in the trap at -196°C. Alternate freezing and heating of the H <sub>2</sub> O <sub>2</sub> solution did not affect its stability, nor did the presence of metal particles or silicic acid, which are thought to be present in a glow discharge. When H <sub>2</sub> O <sub>2</sub> was deposited on the cold wall of the trap in the form of a drop at atmospheric pressure, the amount of gas evolved on heating was slightly greater than when H <sub>2</sub> O <sub>2</sub> was evaporated in a vacuum. It is concluded that H <sub>2</sub> O <sub>2</sub> does not			

Card 1/2

L 58394-65

ACCESSION NR: AP5018493

decompose under conditions accompanying the synthesis of the superoxide H<sub>2</sub>O<sub>4</sub>. "The authors thank L.I. Korzhakov, who kindly provided the concentrated solution of hydrogen peroxide used in the experiments." Orig. art. has: 1 table.

2

ASSOCIATION: Kafedra fizicheskoy khimii Moskovskogo universiteta (Department of Physical Chemistry, Moscow University).

SUBMITTED: 06Jul84

ENCL: 00

SUB CODE: 10

NO REF SOV: 001

OTHER: 006

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001961820001-3

Card 2/2 ddp

L 06470-57  
ACC NR:EWP(1)/EWT(m)/EWF(t)/ETI  
AP6029212

IJP(c)

RM/FDN/NW/TH/JD

SOURCE CODE: UR/0076/66/040/006/1304/1309

AUTHOR: Yagodovskaya, T. V.; Nekrasov, L. I.

ORG: Chemistry Department, Moscow State University im. M. V. Lomonosov (Khimicheskiy fakul'tet, Moskovskiy gosudarstvennyy universitet)

TITLE: On the problem of higher hydrogen peroxide and frozen radicals. Part 10:  
Infrared absorption spectrum of a peroxide-radical condensate obtained by the reaction  
of liquid ozone and atomic hydrogen

SOURCE: Zhurnal fizicheskoy khimii, v. 40, no. 6, 1966, 1304-1309

TOPIC TAGS: ozone, hydrogen, hydrogen peroxide, ABSORPTI. & SPECTRUM,  
IR ABSORPTIONABSTRACT: A systematic study of IR absorption spectra of a peroxide-radical condensate synthesized from liquid ozone and atomic hydrogen at the liquid nitrogen temperature was carried out. The spectra were recorded at -190°C at a pressure of  $10^{-4}$ - $10^{-5}$  mm. All the absorption bands were broad, and the spectrum of the condensate was very similar to that of liquid ozone, indicating that the products formed have a structure similar to that of liquid ozone. The 1100, 1390 and 3400  $\text{cm}^{-1}$  bands are assigned to the  $\text{HO}_2$  radical. The results indicate that the condensation of ordinary hydrogen peroxide in the synthesis from ozone is absent in the primary condensation products, and present in other methods of synthesis. The condensate is thought to contain molecules

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whose composition includes the OH group. The formation of H<sub>2</sub>O<sub>3</sub> and H<sub>2</sub>O<sub>4</sub> molecules in the peroxide-radical condensate is postulated. Orig. art. has: 2 figures and 1 table.

SUB CODE: 07/ SUBM DATE: 05Jan65/ ORIG REF: 008/ OTH REF: 010

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ACC NR: AP7006239

SOURCE CODE: UR/0076/67/041/001/0211/0215

AUTHOR: Yagodovskaya, T. V.; Nekrasova, L. I.

ORG: Chemistry Department, Moscow State University im. M. V. Lomonosov (Khimicheskiy fakul'tet, Moskovskiy gosudarstvennyy universitet)

TITLE: On a higher hydrogen peroxide and frozen radicals. Infrared absorption spectra of a peroxy-radical condensate at various temperatures

SOURCE: Zhurnal fizicheskoy khimii, v. 41, no. 1, 1967, 211-215

TOPIC TAGS: hydrogen peroxide, superoxide, IR spectrum

ABSTRACT: The temperature dependence of the infrared absorption spectra of a peroxy-radical condensate was studied in the range from -40° to -190°C. The 800-900  $\text{cm}^{-1}$ , 900-1000  $\text{cm}^{-1}$  and 1025, 1037, 1100, 1280, and 1450  $\text{cm}^{-1}$  frequencies, which disappear upon decomposition of the peroxy-radical condensate, can be attributed to the compounds  $\text{H}_2\text{C}_4$  or  $\text{H}_2\text{O}_3$ , which are present in the primary reaction product. The behavior of the 880 and 1360-1380  $\text{cm}^{-1}$  frequencies on heating of the primary product leads to the assumption that ordinary hydrogen peroxide is formed as a result of decomposition of the peroxy-radical condensate during its heating. Authors are deeply grateful to Professor N. I. Kobozev for a constant interest in the work. Orig. art. has: 2 figures and 1 table.

SUB CODE: 07/ SUBM DATE: 02Aug65/ ORIG REF: 014/ OTH REF: 004

UDC: 543.42

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L 25098-65 ENT(1)/WT(1)/FCO DIAAP CW

S/0089/65/018/001/0080/0081

ACCESSION NR: AP5001666

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AUTHOR: Malakhov, S. G.; Yagodovskiy, I. V.

B

TITLE: All-union conference on nuclear meteorology

SOURCE: Atomnaya energiya, v. 18, no. 1, 1965, 80-81

TOPIC TAGS: meteorologic conference, atmospheric radioactivity, radioactive agent, radioactivity, nuclear blast effect

ABSTRACT: The All-Union Conference on Nuclear Meteorology held in Obninsk in February 1964 was attended by scientists from a large number of research organizations and institutions. More than 60 reports were presented on the following general topics: the atmosphere's natural radioactivity and its relevance to meteorological research; the global distribution of natural radioactivity in the atmosphere; the settling of radioactive decay products on the earth's surface as a result of nuclear explosions; the composition and properties of radioactive aerosols and gases from localized sources; radioactive aerosol washout from the atmosphere; and research methods and techniques used in nuclear meteorology.

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Reports on natural radioactivity included discussions of the vertical distribution of radioactive emanations and their decay products in the troposphere, an evaluation of the coefficient of vertical turbulent mixing based on radon-concentration measurements, and a review of available experimental data on the exhalation of radon from the earth's surface. In this context, B. I. Styro's account of the dispersion of naturally radioactive Pb<sup>210</sup> (RaD) aerosol particles was of particular interest. Reports were also made on V. D. Vilenskiy's findings on the distribution of Pb<sup>210</sup> (RaD) in the troposphere, and on the data obtained by I. L. Karol' in determining the rate of aerosol washout from the lower troposphere, the magnitude of the coefficient of vertical turbulent mixing in the troposphere and stratosphere, and the rate of exchange in the stratosphere between the two hemispheres (on the basis of the findings of Vilenskiy and others).

The majority of the reports on the global dispersion of radioactive products in the atmosphere resulting from nuclear explosions dealt with data obtained in measuring the level of atmospheric radioactive pollution and the amount of fallout recorded at various points in the SSSR. G. V. Dmitriyeva

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and V. I. Kasatkina presented analyses of instances of the rapid transport of artificially induced radioactive products from the stratosphere into the surface boundary layer of the troposphere; I. L. Karol' and S. G. Malakhova

Reports on the distribution of dispersed aerosols were concerned primarily with the size of radioactive particles in the stratosphere (Ya. I. Gaziyev and L. Ye. Nazarov), the fractionation of isotopes in the process of aerosol formation during nuclear explosions (Yu. A. Izrael' and M. P. Grechushkina), and the distribution of radioactive aerosols by size in the surface boundary layer of the atmosphere (Ya. I. Gaziyev, L. Ye. Nazarov, K. P. Makhon'ko).

Other reports of significance were those on  $\alpha$ -active "hot" particles in the atmosphere, their physical properties, composition, and sizes (B. I. Styro and others); the filtration of radioactive aerosols from the troposphere (K. P. Makhon'ko, S. G. Malakhov, and I. I. Burtsev); the part played by clouds and precipitation in clearing the atmosphere of radioactive aerosols (V. I. Baranov and N. G. Morozova); model tests on the dispersion of aerosols from a point source (N. L. Byzova); improved techniques and

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methods for measuring total  $\beta$ -activity of samples (L.I. Gedeonov and V. D. Spirin); fallout sampling (N. N. Aleksandrov and A. D. Pogudin); and a proposal by Ye. Ye. Versilov for a radiation-sedimentation method of aerosol investigation. The papers presented at this conference will be published in their entirety in 1965.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: ES, CB

NO REF SOV: 000

OTHER: 000

FSB v. 1, no. 3

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BOLTNEVA, L. I.; VASILENKO, V. N.; DMITRIYEV, A. V.; IONOV, V. A.; KOGAN, R. M.; KUZNETSOVA, Z. V.; NAZAROV, I. M.; YAGODOVSKIY, I. V.

Use of the method of air-borne gamma-spectrometry in studying the radioactivity of granitoid intrusives. Izv. AN SSSR. Ser. geofiz. no.6:858-871 Je '64. (MIRA 17:7)

KAROL', I.L., red.; KIRICHENKO, L.V., red.; KRASNOPEVTSEV, Yu.V.,  
red.; KURGANSKAYA, V.M., red.; MALAKHOV, S.G., red.;  
SEREDA, G.A., red.; YAGODOVSKIY, I.V., red.; KALYUZHNAIA,  
T.P., red.

[Radioactive isotopes in the atmosphere and their use in  
meteorology; reports] Radioaktivnye izotopy v atmosfere i  
ikh ispol'zovanie v meteorologii; doklady. Moskva, Atom-  
izdat, 1965. 491 p. (MIRA 18:7)

1. Nauchnaya konferentsiya po yadernoy meteorologii, 2d,  
Obninsk, 1964.

IAGODOVSKII, KONSTANTIN PAVLOVICH

IAGODOVSKII, KONSTANTIN PAVLOVICH. V stranie polunochnago solntsa; vospominaniia o Murmanskoi ekspeditsii. S.-Peterburg, "Zhizn' i Znanie", 1914. xii, 312 p. (Biblioteka dlia iunoshestva. Kn. 13) CSt-H NN DLC: Unclass.

SO: LC, Soviet Geography, Part I, 1951, Uncl.

YAGODOVSKIY, Konstantin Pavlovich

Practical work in nature study for elementary schools; teacher's manual

Moskva, Gos. uchebno-pedagog. izd-vo, 1936. 347 p.

4 QH 178

1. Nature study

1. YAGODOVSKIY, K.P.
2. USSR (600)
4. Science
7. Problems in general methodology of natural science. Moskva, Uchpedgiz, 1951
9. Monthly List of Russian Accessions, Library of Congress, February, 1969. Unclassified.

YAGODOVSKIY, K.P.

Science - Philosophy

Valuable contribution to the theory of method in natural history ("General problems of method in natural history." Reviewed by P.P. Finarov). Est. v shkole no. 2, 1952

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified

*YAGODOVSKY, K.P.*

YAGODOVSKY, K.P., professor; SKATKIN, M.N., redaktor; RYBAKOVA, N.T.,  
redaktor; DZHATIYEV, S.G., tekhnicheskiy redaktor

[Problems of general methodology in the study of natural history]  
Voprosy obshchey metodiki estestvoznanija. Izd. 2-e, dop. Pod red.  
M.N.Skatkina. Moskva, Gos. uchebno-pedagog. izd-vo Ministerstvo  
prosvetlenija RSFSR, 1954. 273 p. (MLRA 8:4)  
(Natural history--Study and teaching)

ISAYENKO, Lyudmila Aleksandrovna; YAGODOVSKIY, K.P., professor, redaktor;  
NOVIKOV, Ya.A., redaktor; VEDENYEV, Ye.A., tekhnicheskiy redaktor

[Natural science; structure and life of the human body. Textbook  
for class -7 of auxiliary schools] Estestvoznanie; stroenie i  
zhizn' chelovecheskogo tela. Uchebnik dlja 7-go klassa vspomogatel'-  
nykh shkol. Pod red. K.P. Iagodovskogo. Izd. 6-e. Moskva, Gos. uchebno-  
pedagog. izd-vo Ministerstva pravoshchenija RSFSR, 1954, 131 p.  
(Anatomy, Human) (MLRA 8:3)

SHIMULIS, V.I.; YAGODOVSKIY, V.D.; GRYAZNOV, V.M.

Spectroscopic study of isomerization kinetics of allylbenzene on  
palladium film. Vest. Mosk. un. Ser.mat.mekh. astron.fiz. khim. 12  
no.4:237-249 '57. (MIRA 11:5)

1. Laboratoriya molekulyarnoy spektroskopii Moskovskogo gosudarstvennogo  
universiteta.

(Benzene--Spectra) (Palladium)

YAGODOVSKY V.D.

## AUTHORS:

Gryaznov, V. M., and Yagodovskiy, V. D.

20-1-22/44

## TITLE:

A Spectroscopic Investigation of the Redistribution of Hydrogen  
in 1,3-Cyclohexadiene on Palladium Films (Spektroskopicheskoye  
izuchenie pereraspredeleniya vodoroda v 1,3-tsiklogeksadiyene  
na plenkakh palladiya).

## PERIODICAL:

Doklady AN SSSR, 1957, Vol. 116, Nr 1, pp. 81-84 (USSR).

## ABSTRACT:

The transformation of 1,3-cyclohexadiene in the presence of palladium catalysts and platinum catalysts was studied by Zelinskiy Pavlov and a 2-stage process was determined. Bell & Thomson studied the H<sub>2</sub>-redistribution in the "Deuterization" of cyclohexadienes and of cyclohexene on platinum black and found that the results of their tests are not in agreement with the Zelinskiy-Pavlov-mechanism. Therefore it was interesting to study this redistribution under conditions at which the process does not seem to be complicated by anything. The method of the production of palladium films and the test conditions are described. The absorption spectra of 1,3-cyclohexene were determined on the infrared 2-ray spectrometer IKS-2 (figure 2). Table 1 shows spectra of the threefold mixtures of these

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in 1,3-Cyclohexadiene on Palladium Films.

substances. In these latter such bands of the individual components were selected which least overlap with other bands. For them the values of the optical density  $\lg (I_0/I)$  were calculated. According to table 1 for every one of the three hydrocarbons these values increase with their concentration from 9 to 60%. Three tests (4 hours each) were carried out on fresh palladium films with equal 1,3-cyclohexadiene quantities at 50, 57, 5 and again 50, 4°C. The composition of the catalysts is summarized in table 2. On increase in temperature the degree of transformation of cyclohexadiene increased from 39 to 91%. In the third test the activity of the palladium film sank. The molar ratio between benzene and cyclohexene, however, remained equal to 1, which completely corresponds to the first transformation stage by Zelinskiy Pavlov. Further test series showed that in the case of 2,5 hours duration of contact the transformation of cyclohexadiene is insignificant, at 50°C it approaches 40 Mol% and at 70°C it is complete. Already

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A Spectroscopic Investigation of the Redistribution of Hydrogen  
in 1,3-Cyclohexadiene on Palladium Films.

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at 50°C the forming cyclohexene is converted to cyclohexane and benzene. Finally details of the behavior of the palladium film in such tests is described.

There are 2 figures, 2 tables and 11 references, 5 of which are Slavic.

ASSOCIATION: Moscow State University imeni M. V. Lomonosov. (Moskovskiy gosudarstvenny universitet imeni M. V. Lomonosova).

PRESENTED: By Balandin, A. A., Academician, May 3, 1957

SUBMITTED: April 27, 1957.

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YAGODOVSKIY, V.D., Cand Chem Sci—(diss) "Spectroscopic study of carbohydrate transformations of palladium films." Mos, 1958. 116pp (Mos State U im M.V.Lomonosov. Chem Faculty), 110 copies (KL,46-58,139)

-16-

AUTHORS:

Gryaznov, V. M., Yagodovskiy, V. D.,  
Shimulis, V. I.

sov/48-22-9-36/40

TITLE:

Methods of Spectroscopic Investigation of Catalytic Transformations on Metal Films (Spektroskopicheskiye metody issledovaniya kataliticheskikh prevrashcheniy na plenkakh metallov)

PERIODICAL:

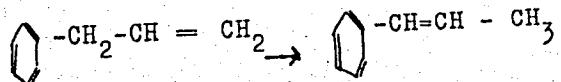
Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1958,  
Vol 22, Nr 9, pp 1136 - 1140 (USSR)

ABSTRACT:

Metal films prepared under a high vacuum differ from catalysts obtained by other methods by the high purity of their surface. Nevertheless the catalytic activity of such films is comparatively low. In the course of time it also disappears at higher temperatures. In order to determine in a rapid manner the extent of the reactions catalyzed by these films the authors employed optical cuvettes. It is possible to apply a film to their walls and windows in vacuo. The time course of the isomerization process of allyl benzene into propenyl benzene

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Methods of Spectroscopic Investigation of Catalytic SOV/43-22-9-36/40  
Transformations on Metal Films



on palladium films was studied with the help of ultraviolet absorption spectra. The palladium films were sublimated in a vacuum of  $1.10^{-6}$  torr on the interior walls of a seamless fused quartz cuvette with a length of 150 mm. The cuvette was furnished with windows 1 and 1' with a diameter of 40 mm (Fig 1). The mirror monochromator ZMR-2 with a photoelectric recorder was used for the recording of the absorption spectra of allyl benzene and of propenyl benzene. The accurate method employed and the results achieved were published already in reference 1. The transformation of 1,3 cyclo hexadiene into benzene and cyclohexene even at room temperature proceeds within a few minutes. The transformations of cyclohexene into benzene and cyclohexane proceeds much slower. The transformations of cyclohexadiene on transparent palladium films with a thickness of the order of 100 Å were also investigated. The films were applied directly to the

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Transformations on Metal Films

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windows of the seamless fused quartz cuvette. The absorption of ultraviolet radiation by the benzene which is contained in the vapors and in the layers absorbed on the cuvette windows was measurable with a cuvette length of 16 mm. The absorption spectra of benzene obtained under the conditions described were compared with those obtained from a thicker vapor layer. The DPS-3 diffraction spectrograph with a dispersion of  $2 \text{ \AA mm}^{-1}$  and a theoretical resolution of 144 000 was used. 52 absorption bands were observed with a absorbing layer with a thickness of 170 mm and a benzene vapor pressure of 0,1 torr. The half width of most of the absorption bands did hardly differ from those obtained from iron arc. Apart from the extinction coefficient of the benzene absorbed on the Pd-film only small differences in the shape were observed in a comparison with the benzene absorbed on the quartz windows. This effect requires further investigation. The authors acknowledge valuable suggestions given by V.M.Tatevskiy.

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